

REMARKS

This is in response to the Office Action mailed on September 30, 2004, and the references cited therewith.

Claims 1-72 are pending in this application.

§103 Rejection of the Claims

Claims 1-4, 11, 19-22, 28, 35-38, 44, 51-53 and 57 were rejected under 35 USC § 103(a) as being unpatentable over Agrafiotis et al. (U.S. Patent No. 6,421,612 B1) in view of Guiver et al. (U.S. Patent No. 5,809,490). The rejection is respectfully traversed on the basis that the references either alone or combined do not teach or suggest the invention as claimed.

Claim 1 recites a “normalized system error threshold value” for use in generating a neural network having a reduced error in weight space. The Office Action indicates that Agrafiotis et al., describes the same at Col. 32, line 29. However, Col. 32, line 29 references that “properties p_i are normalized”. This teaching does not refer to an error threshold as does claim 1. Rather, it refers to selective properties of a particular compound in binding to specific targets, as referenced at Col. 32, lines 16-19. Since the two are clearly not related, a prima facie case of obviousness has not been established, and the rejection should be withdrawn.

Other sections of Agrafiotis et al. cited with reference to the same element do not describe the use of a normalized system error threshold value, and therefore do not teach or suggest the claimed element. Independent claims 1, 19, 35, and 51 all reference the use of a normalized system error threshold value, and thus all clearly distinguish from the references.

Col. 16, line 20 references the minimization of an overall prediction error, but does so by “adjusting the number of neurons, synaptic weights, and/or transfer functions in the input, output and hidden layers of the Neural Network” Col. 16, lines 17-19. Again, there is no mention of using a normalized system error threshold value to reduce error in weight space as claimed.

FIG.s 8 and 11 were also referenced by the Office Action with respect to the above element of claim 1: a “normalized system error threshold value” for use in generating a neural network having a reduced error in weight space. FIG. 8 is a block diagram of a structure-property model generator. No mention of normalized system error threshold values is noted.

FIG. 11 is a diagram of a neuro-fuzzy structure-property model structure. Again no mention of normalized system error threshold values is noted.

Finally, Col. 15, line 49 to Col. 16, line 35 is also referenced in the Office Action as describing a “normalized system error threshold value” for use in generating a neural network having a reduced error in weight space. This section of the detailed description of Agrafiotis et al. appears to describe various neural network models. At Col. 16, lines 16-20 recite that: “In general, Neural Network training is the process of adjusting the number of neurons synaptic weights, and/or transfer function in the input, output and hidden layers of the Neural Network, so that the overall prediction error is minimized. While a prediction error is mentioned, there is no mention of a “normalized system error threshold value” as claimed that can be found in the referenced language.

The remaining rejected claims depend from a claim which is believed allowable. As such, they should also be allowable.

Claims 5, 22, 38, 52 and 57 were rejected under 35 USC § 103(a) as being unpatentable over Agrafiotis et al. further in view of Guiver et al. and further in view of Delanoy (U.S. Patent No. 5,793,888). These claims all depend from claims that are believed allowable, and should also be allowable for at least the same reasons.

Applicant notes that claims 6-10, 12-18, 23-27, 29-34, 39-43, 45-50, 54-56 and 58-72 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6972 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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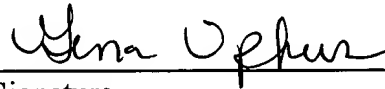


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30 day of December, 2004.

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